

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1, 2, 6-9, 43, 47 and 52 (Cancelled)

59 – 73 (Cancelled)

74. (New) A method for accelerating flowering in a plant, comprising increasing in said plant an endogenous level of at least one compound selected from the group consisting of 11-hydroxyjasmonic acid and 12-hydroxyjasmonic acid, wherein the endogenous level of the at least one compound selected from the group consisting of 11-hydroxyjasmonic acid and 12-hydroxyjasmonic acid is increased by decreasing the expression of a sulfotransferase of SEQ ID NO: 3 or a sequence having at least 60% homology to SEQ ID NO:3.

75. (New) The method of claim 74, wherein said plant is transgenic.

76. (New) The method of claim 74, wherein the sequence has at least 80% homology to SEQ ID No:3.

77. (New) A method for producing a transgenic plant which flowers early, said method comprising the steps of:

- a) introducing into a cell of a suitable plant an exogenous nucleic acid molecule comprising a sequence of nucleotides antisense to a nucleic acid sequence coding for an amino acid sequence of SEQ ID NO:3 or a functional homologue having at least 60% homology to SEQ ID NO:3; encoding a plant hydroxyjasmonic acid sulfotransferase;
- b) regenerating a transgenic plant from the cell; and
- c) growing said transgenic plant for a time and under conditions sufficient to inhibit expression of the hydroxyjasmonic acid sulfotransferase.

78. (New) The method of claim 77, wherein the hydroxyjasmonic acid sulfotransferase is a 11- or a 12- hydroxyjasmonic acid sulfotransferase.

79. (New) The method of claim 77, further comprising the step of applying to a plant at least one flowering inducing compound selected from the group consisting of 12-hydroxyjasmonic acid and 11-hydroxyjasmonic acid.

80. (New) The method of claim 77, further comprising the step of applying to said plant at least one inhibitor of a sulfotransferase having an amino acid sequence having at least 60% homology with SEQ ID NO: 3.

81. (New) The method of claim 77, further comprising the step of inhibiting in said plant the expression of at least one gene coding for SEQ ID NO: 3 or coding for a functional homologue having at least 60% homology to SEQ ID NO: 3.

82. (New) The method of claim 80, wherein the sulfotransferase inhibited has an amino acid sequence having at least 80% homology with SEQ ID NO:3.

83. (New) The method of claim 81, wherein the functional homologue has at least 80% homology to SEQ ID NO:3.

84. (New) The method of claim 77, wherein said exogenous sequence of nucleotides is expressed under the control of a constitutive or an inducible promoter.

85. (New) A plant genetically modified to flower early wherein the plant is obtained by the method of claim 74.

86. (New) The plant of claim 84, which is cauliflower.

87. (New) The plant of claim 84, which is broccoli.

88. (New) The plant of claim 84, which is a horticultural plant.

89. (New) A cut flower from the genetically modified plant of claim 84.

90. (New) A plant genetically modified to flower early wherein the plant is obtained by the method of claim 77.

91. (New) A method for accelerating flowering in a plant, comprising decreasing in said plant an endogenous level of at least one compound selected from the group consisting sulfate ester of 12-hydroxyjasmonic acid and sulfate ester of 11-hydroxyjasmonic acid, wherein the endogenous level of the at least one compound selected from the group consisting sulfate ester of 12-hydroxyjasmonic acid and sulfate ester of 11-hydroxyjasmonic acid is decreased by increasing the expression of a sulfotransferase of SEQ ID NO:3 or a sequence having at least 60% homology to SEQ ID NO:3.

92. (New) The method of claim 91, wherein said plant is transgenic.

93. (New) The method of claim 92, wherein the sequence has at least 80% homology to SEQ ID No:3.

94. (New) The method of claim 91, wherein the plant is cauliflower.

95. (New) The method of claim 91, wherein the plant is broccoli.

96. (New) The method of claim 91, wherein the plant is a horticultural plant.